REMARKS

The final Office Action dated January 3, 2005 has been reviewed and carefully considered. Claims 36-49 and 55 are pending. Claims 50-54 have been canceled.

In paragraph three on page 2 of the Office Action, claims 36, 41-43, 48-50, and 53-55 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673).

In paragraph four on page 5 of the Office Action, claims 37, 38, 40, 44, 45, 47, 51, and 52 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673), and further in view of Suh et al. (U.S. App. Pub. No. 2002/0161536).

In paragraph 1 on page 6 of the Office Action, claims 39 and 46 were rejected under § 103(a) over Burkhardt, Jr. et al. (U.S. Patent No. 5,142,683) in view of Peterson et al. (U.S. Patent No. 6,665,673), Suh et al. (U.S. App. Pub. No. 2002/0161536), and further in view of Urui et al. (JP 61196613).

Applicant respectfully traverses the § 103(a) rejections. Applicant invention, as recited at least in independent claims 36, 43 and 55, recite a read controller for determining when a host command has been provided to a host memory. The read controller asynchronously retrieves the host command directly from a host memory via direct memory access. A validator validates the retrieved host command and a write controller asynchronously signals a successful command transfer from the host memory to the host messaging unit via direct memory access.

Thus, according to Applicant's invention, a read controller and a write controller communicate with a host memory unit (host memory) asynchronously

Burkhardt, Jr. et al. fails to disclose, at least, a read controller asynchronously retrieves the host command directly from a host memory via direct memory access and a write controller that asynchronously signals a successful command transfer from the host memory to the host messaging unit via direct memory access.

Rather, according to Burkhardt, Jr. et al., a mailbox protocol is used to allow agents running in two processors to communicate. A client agent 115 is part of a first processor 29 and a service agent 121 is part of the second processor 22. The client agent 115 places messages in

memory 111. However, memory 111 is part of the first processor 29. The client agent 115 then signals the service agent 121 to check memory 111 for messages.

Thus, the client agent 115 is acting as a host because the message being retrieved by the service agent 121 is that from the client agent 115. However, Applicant's invention requires a read controller, a write controller, a host and host memory. Burkhardt, Jr. et al. simply fails to suggest all of the claim elements recited in independent claims 36, 43 and 55.

Moreover, the messaging of Burkhardt, Jr. et al. is not asynchronous to a host regardless whether one considers processor 29 or processor 22 to be the host. Rather, both agents are controlled by their respective processors and the communications are performed synchronous to interrupts signals rather than asynchronous to the host. Further, the service agent 121 and the client agent cannot be said to communicate asynchronously with each other because the process is continuous based upon the interrupts. The Office Action recognizes this structure in admitting that Burkhardt, Jr. et al. fail to disclose that the host processor is bypassed.

Peterson et al. fail to remedy the deficiencies of Burkhardt, Jr. et al. Peterson et al. fail to disclose, teach or suggest a read controller that determines when a host command has been provided to a host memory and asynchronously retrieves the host command directly from a host memory via direct memory access. In addition, Peterson et al. also fail to disclose, teach or suggest asynchronously signaling a successful command transfer from the host memory to the host messaging unit via direct memory access.

Moreover, Burkhardt, Jr. et al., Peterson et al., Suh et al., and Urui et al., alone or in combination, fail to remedy the deficiencies of Burkhardt, Jr. et al. Suh et al. merely teaches a polling clock. Urui et al. merely teaches polling memory at a required time. However, Burkhardt, Jr. et al., Peterson et al., Suh et al., and Urui et al. alone or in combination, fail to disclose, teach or suggest a read controller that determines when a host command has been provided to a host memory and asynchronously retrieves the host command directly from a host memory via direct memory access. Burkhardt, Jr. et al., Peterson et al., Suh et al., and Urui et al., alone or in combination, also fail to disclose, teach or suggest asynchronously signaling a successful command transfer from the host memory to the host messaging unit via direct memory access.

7

Therefore, Applicant respectfully submits that Applicant's invention is patentable over the cited references and requests that the § 103(a) rejection of the claims be withdrawn.
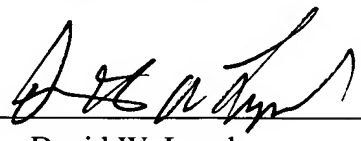
Dependent claims 37-42 and 44-49 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 36 and 43. Further, dependent claims 37-42 and 44-49 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 37-42 and 44-49 are patentable over the cited patent.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested. Please charge/credit Deposit Account No. 50-0996 (IBMS.040US01) for any deficiencies/overpayments.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 651-686-6633 Ext. 116.

Respectfully submitted,

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